

# **INTRODUCTORY REMARKS**

## **Building and Fire Research Laboratory**

**Jack Snell, Director  
June 13, 2000**



National Institute of Standards and Technology  
Technology Administration, U.S. Department of Commerce



# **BFRL Mission**

**Meet the ongoing measurement and standards infrastructure needs of the Building and Fire Safety Communities.**

## **Vision**

***The source of critical tools -- metrics, models, and knowledge -- used to advance the communities we serve.***



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# Envisioned Outcomes

- ***Innovative Materials.*** Enable next generation materials for construction and building products.
- ***Enhanced Building Performance.*** Provide means to assure buildings work better throughout their useful lives.
- ***Fire Loss Reduction.*** Enable engineered fire safety for people, products, facilities, and first responders.

# Current Program

## Innovative Materials

(\$5.9M/31FTE)

- Partnership for High Performance Concrete Technologies
- Service Life Prediction of Materials (Coatings)
- Partnership for Advancing Technologies in Housing - PATH/NIST

## Enhanced Building Performance

(\$12.6M/59FTE)

- Construction Integration and Automation Technologies
- Cybernetic Building Systems
- Measures for Sustainable Buildings
- Earthquake, Fire and Wind Engineering

## Fire Loss Reduction

(\$7.4M/51FTE)

- Fire Safe Materials
- Fire Measurements and Simulation
- Advanced Technologies for Fire Fighting



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Vision...

*for Innovative Materials.* “Enable next generation materials for construction and building products”

## *Customers & Impacts...*

- *Material and Product Producers.* New and better products, broader markets.
- *Owners, Operators, Specifiers.* Actual performance meets or exceeds past expectations.

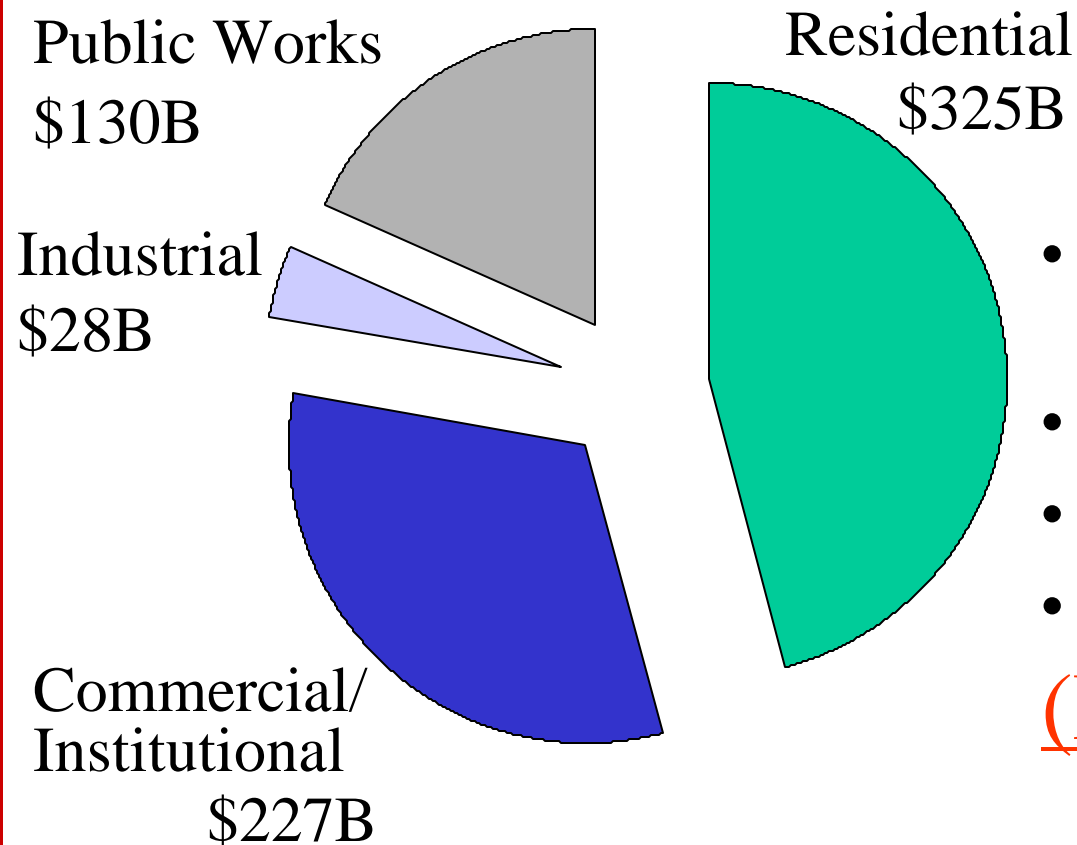


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# Context - Construction and Buildings is Big Business

\$1.1 Trillion Domestic, \$3.2 Trillion Global



- Value of construction put in place.....\$710B
- Renovation.....\$282B
- Maint. & repair..\$148B
- 109M homes

**(Materials \$353B)**

(Est. 1999 data)



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Vision...

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*Technical challenge...*

- Ability to predict life cycle performance.
- Ability to design for service requirements.
- Ability to produce/place cost-effectively.
- Higher quality, sustainable, and lower cost.



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